

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-41 (canceled).

42 (new). A process for sub-culturing a microorganism, the process comprising:

- providing a first vessel containing a first body of solid growth supporting medium;
- inoculating the growth medium at a first location with microorganism;
- causing the microorganism to grow in said medium in said first vessel towards a second location;
- providing a second vessel containing a second body of solid growth supporting medium;
- arranging said first vessel and said second vessel such that medium in the first vessel and medium in the second vessel provide a continuum for growing microorganism; and
- permitting said microorganism to grow from the body of medium in the first vessel into the body of medium in the second vessel through said second location,
- wherein said microorganism is filamentous and said process maintains said microorganism in a genetically stable state over a prolonged period.

43 (new). A process according to claim 42, comprising connecting said second vessel to said first vessel and permitting said microorganism to grow into said second body of medium while said vessels are connected together.

44 (new). A process according to claim 42 comprising removing said first vessel from said second vessel after said microorganism has begun to grow in said second body of medium.

45 (new). A process according to claim 42 comprising:

causing said microorganism to grow in said second body of medium towards a second location therein;

providing a third vessel containing a third body of growth supporting medium;

arranging said second vessel and said third vessel such that medium in the second vessel and medium in the third vessel provide a continuum for growing microorganism; and

permitting said microorganism to grow from said second body of medium into said third body of medium through said second location of said second vessel.

46 (new). A process according to claim 45, wherein said first vessel is used as said third vessel.

47 (new). A process according to claim 42 further comprising causing said microorganism to grow through substantially the entire volume of said solid growth supporting medium.

48 (new). A process according to claim 42 wherein the same solid growth supporting medium is used in each vessel.

49 (new). A microorganism culturing apparatus for sub-culturing and maintaining a filamentous microorganism in a genetically stable state over a prolonged period, the apparatus comprising;

a first vessel defining a cavity extending between first and second ends of said first vessel, said cavity containing a solid growth supporting medium for viably supporting a microorganism;

a second vessel defining a cavity extending between first and second ends of said second vessel, said cavity containing a further quantity of solid growth supporting medium, wherein

the second end of said first vessel and the first end of said second vessel are arranged such that medium at the second end of said first vessel and medium at the first end of said second vessel provide a continuum for growing microorganism.

50 (new). Apparatus as claimed in claim 49, wherein the vessels are generally elongate.

51 (new). Apparatus as claimed in claim 49 further comprising a third vessel containing a further quantity of solid growth supporting medium, wherein the second end of said second vessel and the first end of said third vessel are arranged such that medium at the second end of said second vessel and medium at the first end of said third vessel provide a continuum for growing microorganism.

52 (new). Apparatus as claimed in claim 49 comprising a succession of further vessels, each of said vessels defining a cavity extending between first and second ends of the vessel, said cavity containing a further quantity of growth supporting medium, wherein the respective first ends of the further vessels and the second end of the last-connected vessel in series are arranged such that medium at the second end of said last-connected vessel and medium at the first end of the further vessel to be connected provide a continuum for growing microorganism.

53 (new). Apparatus according to claim 49 wherein the cavities of the vessels are substantially filled with solid growth supporting medium.

54 (new). Apparatus according to claim 49 further comprising an insert provided in at least one end of each vessel for retaining solid growth supporting medium in the vessel.

55 (new). Apparatus as claimed in claim 54 wherein the insert comprises a reticular member extending across the vessel cavity.

56 (new). Apparatus as claimed in claim 54 wherein the insert comprises a collar dimensioned to form a tight fit in the vessel cavity, said collar supporting a fine mesh that extends across the vessel cavity.

57 (new). Apparatus as claimed in claim 54 wherein the insert comprises a collar dimensioned to form a tight fit in the vessel cavity, said collar supporting brace means that extend across the vessel cavity.

58 (new). Apparatus according to claim 49 wherein the outermost ends of a series of vessels are closeable by removable cap means.

59 (new). Apparatus according to claim 49 wherein the same solid growth supporting medium is used in each vessel.

60 (new). Apparatus according to claim 49 wherein the vessels have a membrane window to admit oxygen and to allow for expansion of gases during sterilization.

61 (new). A vessel for use in a microorganism culturing apparatus for sub-culturing and maintaining a filamentous microorganism in a genetically stable state over a prolonged period in accordance with claim 49, the vessel comprising:

a hollow tubular member having walls defining a cavity with first and second open ends, said walls at a first end thereof being adapted to receive a removably

attachable cap member for enclosing one of the ends of the tubular member and said walls at a second end thereof being adapted for cooperation with an open end of a further vessel of substantially the same geometry.

62 (new). A vessel as claimed in claim 61 having a membrane window to admit oxygen and to allow for expansion of gases during sterilization.

63 (new). A kit of parts for forming a microorganism culturing apparatus for sub-culturing and maintaining a filamentous microorganism in a genetically stable state over a prolonged period, said kit comprising:

- (a) a plurality of vessels as claimed in claim 61;
- (b) a plurality of cap members adapted to be removably attachable to said vessels for enclosing at least one of the ends of each of said vessels, wherein said vessels are arrangeable in an end-to-end series.

64 (new). A kit of parts as claimed in claim 63 further comprising growth supporting medium for loading into said plurality of vessels.

65 (new). A kit of parts as claimed in claim 64 further comprising a set of instructions for indicating how to prepare a solid growth supporting medium for loading into said plurality of vessels for viably supporting a microorganism.

66 (new). A process of sampling a microorganism for sub-culture, comprising growing a microorganism in accordance with claim 42 and sampling said microorganism by removing a cross-section of the solid growth supporting medium through which the microorganism has grown.

67 (new). A process for sampling as claimed in claim 66 wherein the removing step comprises removing a vessel from an end-to-end series of vessels through which said microorganism has grown.

68 (new). A process for sampling a microorganism for sub-culture comprising placing a sampling medium adjacent a said second location in accordance with the process of claim 42 for continuing growth of said microorganism thereon.

69 (new). A process for manufacturing a metabolite comprising the steps of:  
growing a microorganism in accordance with the process of claim 42;  
extracting a sample of said microorganism;  
subjecting said sample to conditions suitable for metabolism; and  
extracting metabolite from said sample.

70 (new). A process for preparing a pharmaceutical preparation including the step of isolating a metabolite produced in accordance with claim 69.

71 (new) A microorganism culturing apparatus for sub-culturing and maintaining a filamentous microorganism in a genetically stable state over a prolonged period, the apparatus comprising;

a first vessel defining a cavity extending between first and second ends of said first vessel, said cavity containing a solid growth supporting medium for viably supporting a microorganism;

a second vessel defining a cavity extending between first and second ends of said second vessel, said cavity containing a further quantity of solid growth supporting medium, and

means for arranging the second end of said first vessel and the first end of said second vessel such that medium at the second end of said first vessel and medium at the first end of said second vessel provide a continuum for growing microorganism.